AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An automatable method for identifying cancer cells and their precursor cells in a cell sample or tissue sample, said method comprising the following steps: ~~of~~

a) selecting at least two molecular markers of cancer, wherein the detection of each of said markers alone is not a reliable indicator of the presence of cancer cells and their precursor cells in said cell sample or tissue sample ~~that individually do not achieve sufficient specificity with regard to detecting cancer in said cells~~,

b) contacting ~~a~~ the cell sample or tissue sample with signaling reagents that specifically bind to said at least two molecular markers,

c) simultaneously detecting signal intensities from the markers within a single cell of said cell sample or within a constituent region of a ~~tissue~~ section of said tissue sample, ~~and~~

d) combining and accrediting the signal intensities detected, and comparing the combined and accredited signal intensities to a threshold value, wherein combined and accredited signal intensities above or below the threshold value indicate

the presence of ~~thereby identifying~~ cancer cells and their precursors in ~~the~~ said cell sample or tissue sample.

2. (Previously Presented) The method according to claim 1, further comprising the step of automatically processing the signal intensities into image information and consolidating said information into a proposed diagnosis using a linked diagnostic expert system.

3. (Previously Presented) The method according to claim 1, wherein the signaling reagents produce chromogenic color or fluorescence.

4. (Previously Presented) The method according to claim 1, wherein the at least two molecular markers are selected from the group consisting of:

her2/neu and Ki67, her2/neu and p53, her2/neu and bcl-2, her2/neu and MN, her2/neu and mdm-2, her2/neu and EGF receptor, bcl-2 and Ki67, bcl-2 and MN, bcl-2 and mdm-2, bcl-2 and EGF receptor, her2/neu and bcl-2, p53 and bcl-2, p53 and MN, p53 and mdm-2, p53 and EGF receptor, p16 and p53, p16 and MN, p16 and mdm-2, p16 and EGF receptor, p16 and Ki67, p16 and her2/neu, p16 and bcl-2, MN and mdm-2, MN and EGF receptor, mdm-2 and EGF receptor.

5. (Previously Presented) The method according to claim 1, wherein the sample is obtained from tumors of the mammary gland, the lung, the cervix, the colon, the skin and the prostate.

6. (Cancelled.)

7. (Previously Presented) A test kit for implementing the method according to claim 1 comprising reagents for detecting molecular markers, auxiliary agents, controls, and protocols.

8. (Previously Presented) The method according to claim 1, wherein the at least two molecular markers are selected from the group consisting of her2/neu, p16, p53, Ki67, MN, mdm-2, bcl-2, and EGF receptor.

9. (New) The method according to claim 1, wherein step c) comprises simultaneously detecting signal intensities from the markers within a cell.

10. (New) The method according to claim 1, wherein step c) comprises simultaneously detecting signal intensities from the markers within a constituent region of a section of said tissue sample.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Assistant Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.